Massachusetts Department of Conservation and Recreation
Division of Water Supply Protection, Office of Watershed Management
Forest Management Project Proposal Summary

Site Information

Proposal Summary Item	Item Information/Description
Lot Proposal ID	**WA-19-241**
Fiscal Year	2019
Watershed	**Wachusett**
Town(s)	**Boylston**
Acres	68
Nearest Road	Cross Street
Natural Heritage Atlas overlap?	No
Public Drinking Water Supply Watershed?:	Yes
Forest Types	white pine/hardwood, Oak, mixed – dry site
Soils	Chatfield-Hollis-Rock thin soils, well drained thick Paxton and moderately well drained Woodbridge soils.
Wetland Resources	French Brook bisects the lot flowing south to north. There is also a large wetland in the southwest corner of the lot.
Vernal Pools	There is a newly confirmed vernal pool just north of the stonewall that crosses the property in the northern third of the working unit.

NARRATIVES

General Description/Forest Composition/History:

This property was acquired in two separate chunks, once in 1991 and again in 1995. Unfortunately, prior to DCR ownership this property was a frequent dump site for vehicles, tv's and other household trash using the extensive trail network. The dominant species by far is white pine followed by red oak, black oak, white oak, sugar maple, red maple, pitch pine, gray birch, paper birch, black birch, bigtooth aspen, white ash, black cherry, hickory, blue beech, American beech, hemlock and eastern hophornbeam. The sugar maples are associated with French brook and appear to be old plantings. The oak is dominant in the higher elevations where rock is exposed in some locations with well drained soils. The oak is of average quality for the site. Fortunately, white pine is regenerating very well underneath this oak as the mature pines look of better health and vigor. In the lower elevations white pine is more prevalent, still with a mix of oak and other hardwoods. The white pine is of good quality and there is a greater abundance of hardwoods in the advanced regeneration on the moister soils. This is beneficial, as the oak and other hardwoods show better health on these lower slopes. Even though there are prevalent deer, the viburnum populations (indicator plant) are at good heights. There is heavy storm damage from 1989 along the southern bound and 2009 ice storm damage on the oaks which are still rebuilding their crowns. The property has been cut at different times prior to DCR ownership and are related to the different property owners. The southern area pine stand was thinned and has now resulted in hardwoods, mostly birches, maples, pine and some oaks. These trees are now 2-8" dbh and are starting to create a new age cohort. Unfortunately, the area of the thinning was not very defined and is spread out. The northern area has old signs of small firewood type harvesting and has aided in good pine regeneration.

Regeneration sampling shows that 39% of the plots have adequate regeneration and another 22% have at least marginally acceptable regeneration. This advanced regeneration is comprised of white pine, red oak, red maple, black birch, white ash, black cherry, hickory, blue beech, white oak, American beech, hemlock, eastern hophornbeam and sugar maple. Oak was present in 52% of all plots taken.

Site Selection:

The ideal watershed protection forest is one which best serves the function of the land as a producer of high quality drinking water in both short- and long-term. This forest must be vigorous and diverse in tree

species and ages, be actively accumulating biomass and actively regenerating. Such a forest will be ideally suited to be resilient to and quickly recover from small- and large-scale disturbances such as diseases, insect infestations, ice storms and hurricanes. This site was selected because of the lack of age diversity both in these 68 acres as well as in the 348 DCR-owned acres from which water flows into French Brook and ultimately into the Wachusett Reservoir. This harvest will contribute as much as 13 acres or 33% of young forest towards the ideal protection forest which would have at least 3 distinct age classes of trees distributed throughout this sale area.

Silvicultural Objectives:

Because there is good advanced regeneration spread throughout this working unit, openings will be made accordingly in order to release the advance regeneration. Given that ~75% of the working unit is at a mature age class and none of the working unit is under twenty years old, about 22 acres of openings will occur. After the harvest is complete, the result will be closer to the watersheds ultimate goal of having three distinct age cohorts within each working unit. The species composition will be different in both the white pine stand where hardwoods are regenerating and in the thinner soils where white pine is regenerating under the oaks. Care will be taken to avoid unnecessary release or encouragement of the bittersweet which is located in small areas around the wetlands of the working unit. The operation will focus on creating openings where they are suitable to the topography and have good regeneration.

Cultural Resources:

This area will be assessed by the DCR Archeologist for both known sites of cultural or archeological importance as well as for potential use by pre-Contact Native Americans.

Wildlife/Rare or Endangered Species:

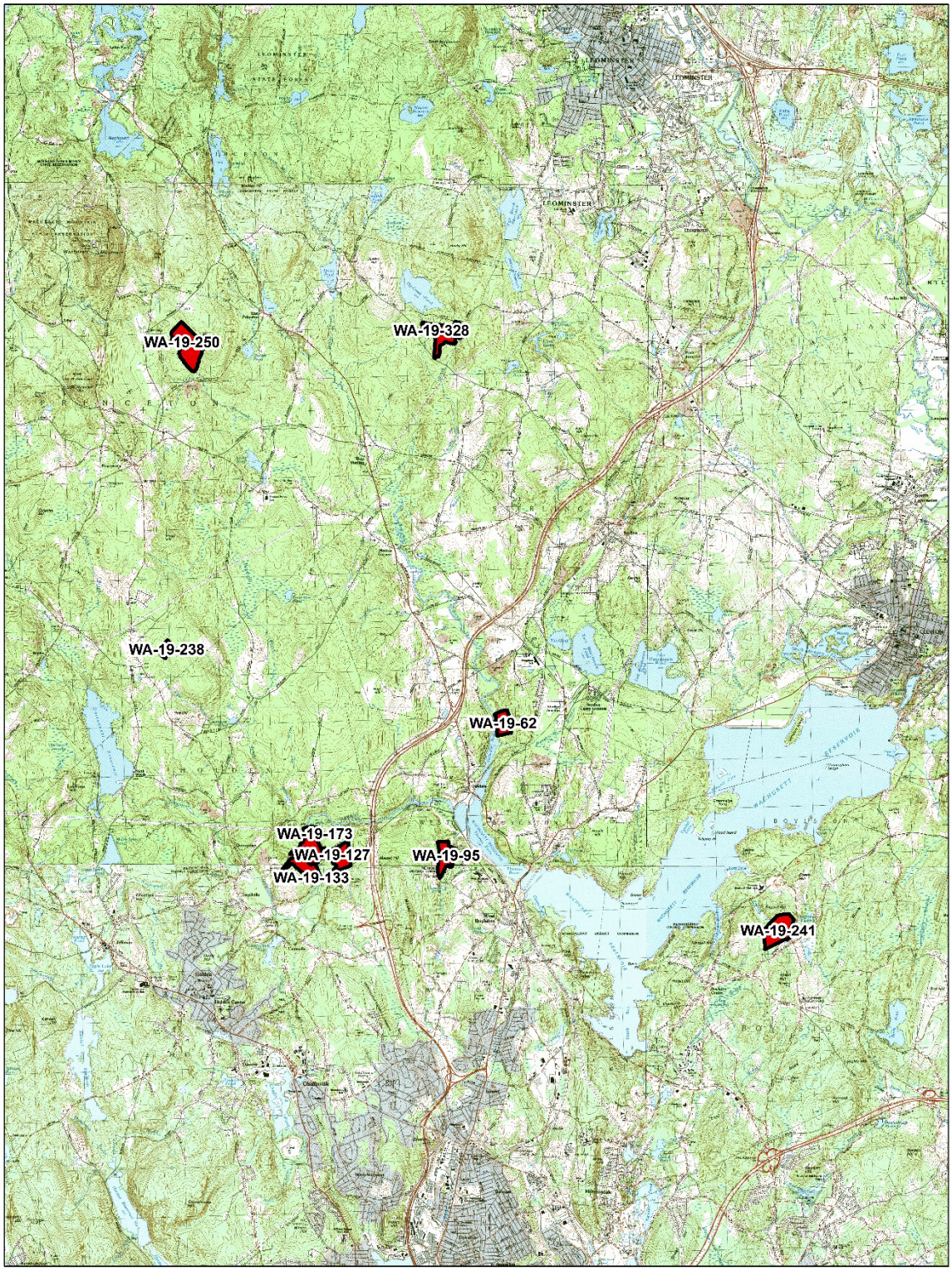
All DWSP Best Management Practices for wildlife management such as the protection and enhancement of wildlife habitat features will be an integral part of the silviculture and job layout. Diverse hard and soft mast species will be retained and the healthiest trees will be released to improve seed production, which will promote tree seedlings and food for wildlife. Large snags, den trees, logs and nest trees will be retained whenever possible as valuable habitat. No stick nests were observed, but if they are identified in the further steps of this process they will be protected. Where they occur; streams, wetlands, seeps and vernal pools will be protected for water quality and wildlife habitat.

All vernal pools, whether verified or potential, will be protected using the appropriate Best Management Practices.

DCR - Wachusett Reservoir

Proposed Timber Sales FY 2019

Locus Map (Scale 1:72,000 - 1 inch =6,000 feet)



DCR - Wachusett Reservoir
Timber Lot Proposal WA-19-241

1 inch = 200 feet

Outline of Proposed Area (Working Unit)

DCR Property Lines w/wo walls

Stone walls

Streams

Wetlands

Vernal Pools-Verified

Vernal Pools-Potential

Landing/s

NHESP Priority Habitats (semi-transparent)

DCR Gate/s

0 120 240 480 Feet